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-- LoadStateDefs.mesa
-- Last Modified by Sandman, March 23, 1978 10:17 AM

DIRECTORY
  AltoDefs: FROM "altodefs",
  AltoFileDefs: FROM "altofiledefs",
  ControlDefs: FROM "controldefs",
  SegmentDefs: FROM "segmentdefs";

LoadStateDefs: DEFINITIONS =

  BEGIN

    LoadState: TYPE = POINTER TO LoadStateObject;

    LoadStateObject: TYPE = MACHINE DEPENDENT RECORD [
      bcds: ARRAY [0..MaxBcds) OF BcdAddressObject,
      gft: ARRAY [0..0) OF ConfigGFI];

    LoadStateGFT: TYPE = DESCRIPTOR FOR ARRAY OF ConfigGFI;

    ConfigGFI: TYPE = RECORD [
      config: ConfigIndex,
      gfi: GFTIndex];

    GFTIndex: TYPE = ControlDefs.GFTIndex;

    ConfigIndex: TYPE = [0..177B];
    ConfigNull: ConfigIndex = LAST[ConfigIndex];

    MaxBcds: CARDINAL = AltoDefs.PageSize/SIZE[BcdAddressObject];
    BcdArrayLength: CARDINAL = SIZE[BcdAddressObject]*MaxBcds;

    BcdAddress: TYPE = POINTER TO BcdAddressObject;

    BcdAddressObject: TYPE = MACHINE DEPENDENT RECORD [
      fp: AltoFileDefs.FP,
      da: AltoFileDefs.vDA,
      base: CARDINAL,
      fill: [0..77B],
      unresolved, exports: BOOLEAN,
      pages: BcdPageCount];

    BcdPageCount: TYPE = [1..256];

    EnumerationDirection: TYPE = {recentfirst, recentlast} ;
    Relocation: TYPE = DESCRIPTOR FOR ARRAY OF GFTIndex;
    FileSegmentHandle: TYPE = SegmentDefs.FileSegmentHandle;

    MapConfigToReal: PROCEDURE [cfgi: GFTIndex, config: ConfigIndex] RETURNS [rgfi: GFTIndex];
    MapRealToConfig: PROCEDURE [rgfi: GFTIndex] RETURNS [cfgi: GFTIndex, config: ConfigIndex];
    EnterGfi: PROCEDURE [cfgi, rgfi: GFTIndex, config: ConfigIndex];

    InitializeRelocation: PROCEDURE [config: ConfigIndex] RETURNS [rel: Relocation];
    ReleaseRelocation: PROCEDURE [rel: Relocation];

    InputLoadState: PROCEDURE RETURNS [nbcds: ConfigIndex];
    UpdateLoadState: PROCEDURE [
      bcd: ConfigIndex, bcdseg: FileSegmentHandle, unresolved, exports: BOOLEAN];
    RemoveConfig: PROCEDURE [rel: Relocation, config: ConfigIndex];
    LoadStateFull: ERROR;
    ReleaseLoadState: PROCEDURE;

    BcdSegFromLoadState: PROCEDURE [bcd: ConfigIndex] RETURNS [bcdseg: FileSegmentHandle];
    BcdHasUnresolvedImports: PROCEDURE [bcd: ConfigIndex] RETURNS [unresolved: BOOLEAN];
    SetUnresolvedImports: PROCEDURE [bcd: ConfigIndex, unresolved: BOOLEAN];
    BcdHasExports: PROCEDURE [bcd: ConfigIndex] RETURNS [exports: BOOLEAN];

    EnumerateLoadStateGFT: PROCEDURE [
      proc: PROCEDURE [rgfi: GFTIndex, cfgi: GFTIndex, config: ConfigIndex] RETURNS [BOOLEAN]]
      RETURNS [GFTIndex];
    EnumerateLoadStateBcds: PROCEDURE [dir: EnumerationDirection,
      proc: PROCEDURE [ConfigIndex, BcdAddress] RETURNS [BOOLEAN]]
      RETURNS [config: ConfigIndex, bcd: BcdAddress];
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GetInitialLoadState: PROCEDURE RETURNS [initstateseg: FileSegmentHandle];
GetLoadState: PROCEDURE RETURNS [stateseg: FileSegmentHandle];
SetLoadState: PROCEDURE [stateseg: FileSegmentHandle];
ResetLoadState: PROCEDURE [initialGFT: LoadStateGFT];
UpdateLoadStateDA: PROCEDURE [bcdseg: FileSegmentHandle];

END....
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